Claims

[c1] 1. A data processing system-implemented method of modeling an operating parameter for a store comprising:

determining an effect of a first variable on quantities of a plurality of items sold a vendor to determine which of the plurality of items are significantly affected by the first variable;

generating a first matrix that includes first weighing factors, wherein:

for each item that is more significantly affected by the first variable, assigning a non-zero value to its corresponding first weighing factor; and

for all other items within the plurality of items that are less significantly affected by the first variable, assigning values of zero to their corresponding first weighing factors; and

calculating the operating parameter using the first matrix.

[c2] 2. The method of claim 1, wherein:

the first item belongs to a first category; and

the second item belongs to a second category that is different from the first category.

[c3] 3. The method of claim 1, further comprising:

determining an effect of a second variable on quantities of the plurality of items sold by the vendor to determine which of the plurality of items are significantly affected by the second variable; and

generating a second matrix that includes second weighing factors, wherein:

for each item that is more significantly affected by the second variable, assigning a non-zero value to its corresponding second weighing factor; and

for all other items within the plurality of items that are less significantly affected by the second variable, assigning values of zero to their corresponding first weighing factors,

wherein:

the first variable includes a price change of a first item within the plurality of items;

the second variable is a variable other than a price change of any item within

the plurality of items; and
the second matrix is used in calculating the operating parameter.

[c4] 4. The method of claim 3, wherein the first matrix and the second matrix are a same matrix.

[c5] 5. The method of claim 1, wherein the operating parameter is selected from a group consisting of a demand, a revenue, and a profit.

[c6] 6. The method of claim 1, further comprising at least one more act as part of performing a what-if analysis, capacity planning for a store, or inventory control.

[c7] 7. The method of claim 1, wherein determining is performed using a significance test.

[c8] 8. The method of claim 1, further comprising determining that the first variable has a significant impact on demand on a first item within the plurality of items.

[c9] 9. The method of claim 8, further comprising determining that a second variable has an insignificant impact on demand on the plurality of items, wherein the first matrix has a first row corresponding to the first variable but does not include a row corresponding to the second variable.

[c10] 10. A data processing system readable medium having code embodied therein, the code including instructions executable by a data processing system, wherein the instructions are configured to cause the data processing system to :
determining an effect of a first variable on quantities of a plurality of items sold by a vendor to determine which of the plurality of items are significantly affected by the first variable;
generating a matrix that includes first weighing factors, wherein:
for each item that is more significantly affected by the first variable, assigning a non-zero value to its corresponding first weighing factor; and
for all other items within the plurality of items that are less significantly affected by the first variable, assigning values of zero to their corresponding first

weighing factors; and

calculating the operating parameter using the first matrix.

[c11] 11. The data processing system readable medium of claim 10, wherein:

the first item belongs to a first category; and

the second item belongs to a second category that is different from the first category.

[c12] 12. The data processing system readable medium of claim 10, wherein the method further comprises:

determining an effect of a second variable on quantities of the plurality of items sold by the vendor to determine which of the plurality of items are significantly affected by the second variable; and

generating a second matrix that includes second weighing factors, wherein:

for each item that is more significantly affected by the second variable,

assigning a non-zero value to its corresponding second weighing factor; and

for all other items within the plurality of items that are less significantly affected by the second variable, assigning values of zero to their corresponding first weighing factors,

wherein:

the first variable includes a price change of a first item within the plurality of items;

the second variable is a variable other than a price change of any item within the plurality of items; and

the second matrix is used in calculating the operating parameter.

[c13] 13. The data processing system readable medium of claim 12, wherein the first matrix and the second matrix are a same matrix.

[c14] 14. The data processing system readable medium of claim 10, wherein the operating parameter is selected from a group consisting of a demand, a revenue, and a profit.

[c15] 15. The data processing system readable medium of claim 9, wherein the

method further comprises at least one more act as part of performing a what-if analysis, capacity planning for a store, or inventory control.

[c16] 16. The data processing system readable medium of claim 9, wherein determining is performed using a significance test.

[c17] 17. The data processing system readable medium of claim 9, wherein the method further comprises determining that the first variable has a significant impact on demand on a first item within the plurality of items.

[c18] 18. The data processing system readable medium of claim 17, wherein the method further comprises determining that a second variable has an insignificant impact on demand on the plurality of items.